

WHAT IS CLAIMED IS:

1. An inspection and control system for monitoring the production of blow molded containers comprising:

5 a thickness monitor for generating a thickness signal representing an average wall thickness of a container produced by a container manufacturing machine; and

10 a system control connected to said thickness monitor and being responsive to said thickness signal for generating a control signal, said control signal adapted to be used by machine controls of the container manufacturing machine for adjusting operation of the container manufacturing machine based upon said average wall thickness.

15 2. The inspection and control system according to claim 1 including means for generating a pneumatic signal representing air pressure applied to a preform by the container manufacturing machine, said system control being responsive to said pneumatic signal for adjusting operation of the container manufacturing machine.

20 3. The inspection and control system according to claim 1 including means for generating a heater signal representing heat applied to a preform by the container manufacturing machine, said system control being responsive to said heater signal for adjusting operation of the container manufacturing machine.

25 4. The inspection and control system according to claim 1 including means for generating a mechanical signal representing a mechanical applied to a preform by the container manufacturing machine, said system control being responsive to said mechanical signal for adjusting operation of the container manufacturing machine.

30 5. The inspection and control system according to claim 1 including means for generating a temperature signal representing a temperature of a preform, said system control being responsive to said temperature signal for adjusting operation of the container manufacturing machine.

6. The inspection and control system according to claim 1 including means for generating an ambient temperature signal representing a temperature of air around the container manufacturing machine, said system control being responsive to said temperature signal for adjusting operation of the container manufacturing machine.

7. The inspection and control system according to claim 1 wherein said system control includes a display means for visually displaying data related to said thickness signal.

8. The inspection and control system according to claim 1 wherein said system control generates said control signal based upon an average of a predetermined number of said thickness signals each representing an average wall thickness of an associated one of a plurality of containers produced by the container manufacturing machine.

9. A container manufacturing system for the production of blow molded containers comprising:

a container manufacturing machine having devices operating on a preform to produce a container;

a machine control means connected to said devices for controlling said devices;

a thickness monitor for generating a thickness signal representing an average wall thickness of the container produced by said container manufacturing machine; and

a system control connected to said thickness monitor and being responsive to said thickness signal for generating a control signal, said system control being connected to said machine control means, said control signal being used by said machine control means for adjusting operation of said devices based upon said average wall thickness.

10. The system according to claim 8 wherein said devices include at least one of a pneumatic device, a heater and a mechanical device.

11. The system according to claim 8 wherein said system control includes a display means for visually displaying data related to said thickness signal.

12. The system according to claim 8 wherein said system control responds to feedback signals generated by said devices by adjusting said operation of said devices.

13. The system according to claim 8 wherein said system control responds to feedback signals generated by at least one of a preform temperature sensor and an ambient temperature sensor by adjusting said operation of said devices.

14. A method of controlling the production of blow molded containers including the steps of:

- a) producing a container in a container manufacturing machine;
- b) transporting the container from the container manufacturing machine;
- c) sensing a combined wall thickness at a location on the container and generating a signal representing an average wall thickness at the location on the container; and
- d) adjusting operation of the container manufacturing machine in response to the signal to effect the production of subsequent containers.

15. The method according to claim 13 including performing said steps a) through c) for a predetermined number of containers before performing said step d).

16. The method according to claim 13 including calculating a trend based upon the average wall thickness of a predetermined number of the containers.

17. The method according to claim 15 including displaying the trend.

18. The method according to claim 13 including performing said step d) in response to feedback signals from at least one of a pneumatic device, a heater, a mechanical device, a preform temperature sensor and an ambient air temperature sensor.